

difference in the direction of convolution of any two blossoms of the same branch.—W. W. BAILEY.

P. S. I find, upon consulting LeMaout and DeCaisne under *Sterculiaceæ* two diagrams of *Hermannia* are given, the one "twisted to the right," the other to the left. It is not spoken of in the text.—W. W. B.

RECENT PUBLICATIONS.—*American Journal of Science and Arts*, May.—Dr. Leo Errera, in Belgium, has been investigating some Pentstemons and has come to the conclusion that the principal function of the sterile filament is to obstruct the access of unwelcome insects to the nectar at the base of the flower.

*American Naturalist*, May.—In regard to the self-fertilization of plants the conclusions of the Rev. Geo. Henslow are given as follows: "1. The majority of flowering plants can, and possibly do, fertilize themselves. 2. Very few plants are known to be physiologically self-sterile when the pollen of a flower is placed on the stigma of the same flower. 3. Several plants are known to be morphologically self-sterile in that the pollen cannot, without aid, reach the stigma, but is effective on that of the same flower. 4. Self-sterile plants from both the above causes can become self-fertile. 5. Highly self-fertile forms may arise under cultivation. 6. Special adaptations occur for self-fertilization."

*Ferns of North America*. Parts 14 and 15.—This number contains *Aspidium Goldianum*, Hooker, *A. Filix-mas*, Swartz, *Polypodium pectinatum*, L., *P. Phyllitidis*, L., *Pellæa Bridgesii*, Hooker, *P. Breweri*, Eaton, *Notholaena tenera*, Gillies, *Dicksonia pilosiuscula*, Willd., (*D. punctilobula*, Kunze.), *Cheilanthes tomentosa*, Link, and *C. Eatoni*, Baker.

*Journal of Botany*, British and Foreign.—On the Sources of the China Matting of Commerce. In addition to the matting used for sails, Canton and the large district city of Tung-kun are the seats of an extensive manufacture of floor-matting, almost all of which is exported to the United States. The plant from which it is woven is *Cyperus tegetiformis*, Roxb.

The third part of Prof. Beccari's *Malesia* describes five new species of *Osmorhiza* and nine of *Rhododendron*. Three species of *Nepenthes* are found in New Guinea. But the most interesting plant figured and described is *Corsia*, from the north coast of New Guinea; it is a small aphyllous parasite, with a scaly stem bearing a single terminal flower. It may form the type of a new Natural Order *Corsiaceæ*. Parts 80 and 81 of the *Flora Brasiliensis* were issued in December, 1878. In the proceedings of the Linnean Society of London, there

was exhibited a drawing, natural size, of one of the remarkable crimson-colored pitchers of *Nepenthes sanguinea* from Malacca; this cylindrical pitcher measured twelve inches long and nine inches in circumference. In a paper on Inflorescence, Dr. Maxwell Masters, discusses schemes of classification and proposes a rearrangement under the heads of *monopodial* or indefinite, *choripodial* or dichotomous and *pleiopodial* or definite.

*United States Species of Lycoperdon*, by Chas. H. Peck, A. M.—The nature and object of this paper cannot be given better than in the prefatory note of its author. "The literature of the puff-balls of the United States is very much scattered and in some instances scarcely accessible, the descriptions are often imperfect and unsatisfactory and the technical terms employed in describing the species are scarcely intelligible, without explanation, to any except mycologists. It has therefore seemed desirable to bring together the descriptions of all our species, so far as known, and, for the purpose of rendering them more satisfactory and intelligible to the general reader, to remodel them, giving them more uniformity of style and more completeness of detail and employing the strictly technical terms only after having given an explanation of their meaning. Besides this the specific descriptions have been supplemented by remarks upon the general and more obvious characters, and the distinguishing features of such species as are closely allied and liable to be confused have been specially mentioned. It is believed that the species thus described can be identified without the aid of a microscopic examination of the spores, but for the sake of completeness the spore characters have been given in all cases in which they were ascertainable." It seems that we have nineteen species of *Lycoperdon*, and with this paper as a guide it also seems that any one ought to be able to distinguish them.

*Gramineæ*, by Geo. Vasey, M. D.—Although there is no statement of the fact we judge that this handsomely printed pamphlet is an extract from the final report on the Botany of the Wheeler Survey. Dr. Vasey has long had a fondness for the grasses and has here made a careful and full report. Descriptions are given of all grasses not described in easily attainable reports, and references indicate plates, though none appear in this extract. Of the 122 species catalogued four are described as new, *Vilfa minima*, *Poa Wheeleri*, *Festuca Thurberi* and *Trisetum Wolfii*, the last being dedicated to the indefatigable collector of the expedition.

*Descriptions of some new species of North American Mosses*, by Leo

Lesquereux and Thos. P. James, with a supplement by W. P. Schimper.—In the prefatory note it is said that the new species of mosses described have been received from various sources since the death of Mr. Sullivant and the publication of the Supplement to the *Icones Muscorum*. On a recent visit by Mr. James to Europe, he took with him not only specimens of these species, but also of many of those recently described as new in the scientific periodicals of this country, for the purpose of critically re-examining the whole in co-operation with Prof. W. P. Schimper, of Strasburg. Seventeen species are described, ten of which come from the south, seven being from Florida.

*Characeæ Americanae*, by Timothy F. Allen, A. M., M. D., Part I.—This consists of a handsome colored plate of *Chara gymnopus*, A. Br., var. *elegans*, A. Br., with a page of letter press. It is well executed and we hope that other parts will speedily follow.

*Catalogue of the Flowering Plants, Ferns and Fungi* growing in the vicinity of Cincinnati, by J. F. James—This catalogue is from the *Journal of the Cincinnati Society of Natural History*, April, 1879. The list of Fungi has been taken from Mr. Lea's catalogue, published in 1849, and now out of print. Part of the nomenclature has been brought up to date, Watson's Bibliographical Index being followed as far as published. Through Filices, 898 species are listed. To this is added Lea's catalogue of 319 Fungi, making quite a respectable showing for Cincinnati botanists. Future investigations may yield many more species and some may need to be verified, as for instance *Cyperus Lancastriensis*, Porter. *Carce Muskingumensis*, Schw. should have been written *C. arida*, Schw. & Torr. and some other names after *Compositæ* might have been changed, but the catalogue is a good one and is a step in the right direction.

*Bulletin of the Torrey Botanical Club*, April.—C. F. Austin in his notes on Hepaticology describes nine new species of Liverworts. Under the title of "New or little-known Ferns of the United States," Prof. D. C. Eaton gives *Adiantum tenerum*, Swartz, *Pteris Cretica*, L., *P. serrulata*, L. fil., *Asplenium ebeneum*, var. *proliferum*, and *Ophioglossum vulgatum*, Plumier.

C. F. WHEELER reports growing near Hubbardston, Michigan, *Draaba Caroliniana*, Walt., and *Utricularia resupinata*, Green, neither of which have been before noticed in that state.